

## ABSTRACT

The invention provides a differential current output unit that has a least number of capacitors and a minimized chip area on one hand, and on the other hand that is capable of providing a smoothly varying output current across a zero-crossing point in accord with an inputted difference input voltage. To do this, the differential current output unit is entirely formed of differential circuits and current mirror circuits having predetermined current mirror ratios. Thus, the unit has a stable output current characteristic. The unit has an inflow output transistor circuit and an outflow output transistor circuit that are operably separated by a delivery circuit. Thus, no penetration current will flow through the inflow and outflow-output transistor circuits.